WHAT IS CLAIMED IS:

1. An optical pick-up apparatus that records information in an optical recording medium and/or reproduces information from the optical recording medium by means of light, comprising:

a light source for emitting light;

a diffraction grating for diffracting light emitted from the light source, the diffraction grating being formed line-symmetrically with respect to a virtual line perpendicular to a radius direction of the optical recording medium in an attached state, and divided into a plurality of diffraction regions formed in such a manner that each has an inclination angle with respect to the virtual line and grating cycles of adjacent diffraction regions have a phase difference of 180 degrees with each other;

light collecting means for collecting light emitted from the light source onto the optical recording medium;

a light diverging element for diverging reflection light reflected on the optical recording medium; and

a light receiving element for receiving the reflection light diverged by the light diverging element,

wherein the diffraction grating is formed on a rectangular substrate made of a light-transmitting material.

2. The optical pick-up apparatus of claim 1, wherein the diffraction grating is disposed between the light source and the light diverging element.

3. The optical pick-up apparatus of claim 1, wherein the diffraction grating is formed on the substrate on a surface facing the light source, and the light diverging element is formed on the substrate on a surface facing the light collecting means.

4. The optical pick-up apparatus of claim 3, wherein the light source is formed integrally with the substrate on which the diffraction grating and the light diverging element are formed.

5. The optical pick-up apparatus of claim 1, wherein the light source is formed in such a manner that an outer shape thereof is shaped like a rectangular parallelepiped, and that a width w, which is a dimension in a direction parallel to a surface of the optical recording medium, is larger than a thickness t, which is a dimension in a direction perpendicular to the surface of the optical recording medium ($w > t$).

6. An optical pick-up apparatus that records information in an optical recording medium and/or reproduces information from the optical recording medium by means of light, comprising:

a light source for emitting light;

a diffraction grating for diffracting light emitted from the light source, the diffraction grating being formed line-symmetrically with respect to a virtual line perpendicular to a radius direction of the optical recording medium in an attached state, and divided into a plurality of diffraction regions formed in such a manner that each has an inclination angle with respect to the virtual line and grating cycles of adjacent diffraction regions have a phase difference of 180 degrees with each other;

light collecting means for collecting light emitted from the light source onto the optical recording medium;

a light diverging element for diverging reflection light reflected on the optical recording medium; and

a light receiving element for receiving the reflection light diverged by the light diverging element,

wherein the diffraction grating is formed integrally with the light collecting means.